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## Yields of the Field Experiments 1993

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### 93/W/CS/375 Take-all Epidemics - W. Wheat

#### Rothamsted Research

Rothamsted Research (1994) *93/W/CS/375 Take-all Epidemics - W. Wheat* ; Yields Of The Field Experiments 1993, pp 92 - 93 - DOI: <https://doi.org/10.23637/ERADOC-1-48>

93/W/CS/375

**TAKE-ALL EPIDEMICS**

**Object:** To determine whether severe take-all (*Gaeumannomyces graminis*) can be caused by artificial inoculum in winter wheat and to determine the distribution of such infection within the crop - Woburn, Butt Close I.

**Sponsors:** G. L. Bateman, D. Hornby.

The second year, w. wheat

For previous year see 92/W/CS/375

**Design:** 3 randomised blocks of 6 x 2, plus 2 extra plots.

**Whole plot dimensions:** 2.5 x 6.0.

**Treatments:** All combinations of:-

1. **SOW DATE[92]** Date of sowing in autumn 1991:

(E) Early  
(L) Late (4 weeks later)

2. **INOCULTN[92]** Weight (kg) of inoculated oat seed applied by combine drill in autumn 1991 and spring 1992:

	Autumn (E)	Autumn (L)	Spring
(0)	Nil	Nil	-
(1)	Nil	200	-
(2)	200	200	-
(3)	400	200	-
(30)	400	200	Nil
(3S)	400	200	500

plus 2 extra plots, systematically arranged with treatments 0 and 2.

**NOTE:** INOCULTN[92] (0), (1), (30): Nil occurs where empty drill was drawn across plots.

**Experimental diary:**

21-Sep-92 : B : Ploughed.  
07-Oct-92 : B : Rotary harrowed, Mercia, undressed, drilled at 380 seeds per square metre.  
15-Mar-93 : B : 34.5% N at 120 kg.  
15-Apr-93 : B : Ally at 30 g and Deloxil at 1.0 l in 200 l.  
29-Apr-93 : B : 34.5% N at 460 kg.  
01-Jun-93 : B : Mistral at 0.50 l and Halo at 2.0 l in 200 l.  
17-Aug-93 : B : Combine harvested.

**NOTE:** Plant samples were taken for take-all assessment in spring and summer.

93/W/CS/375

GRAIN TONNES/HECTARE

\*\*\*\*\* Tables of means \*\*\*\*\*

INOCULTN	(0)	(1)	(2)	(3)	(30)	(3S)	Mean
<b>SOW DATE</b>							
(E)	2.97	2.61	3.41	3.21	4.11	3.69	3.33
(L)	4.33	3.95	4.24	3.40	4.30	4.68	4.15
Mean	3.65	3.28	3.83	3.30	4.20	4.19	3.74

\*\*\* Standard errors of differences of means \*\*\*

SOW DATE	INOCULTN	SOW DATE INOCULTN
0.222	0.384	0.543

\*\*\*\*\* Stratum standard errors and coefficients of variation \*\*\*\*\*

Stratum	d.f.	s.e.	cv%
BLOCK.WP	22	0.665	17.8
GRAIN MEAN DM%	86.3		
PLOT AREA HARVESTED	0.00130		